



The Surrey Amateur Radio Club

Communicator

April 2015

18 APRIL 2015

WORLD AMATEUR RADIO DAY

ةاوهلا وي دارلل يملاعلا مويلا

Día Mundial del Radioaficionado

Всемирный День радио Любительское

世界业余无线电日

Journée mondiale de la radio amateur

Global Communication and Friendship for All

The Newsletter of the Surrey Amateur Radio Club

April 2015



At The Last Meeting...

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At The March General Meeting...

Introductions & Announcements

March 11, 2015

President John Brodie VA7XB opened the meeting at 1900 hr. The agenda was approved. It was noted that Heinz Buhrig VA7AQ underwent surgery today, and a "Get Well" card was passed around for signing. Two members indicated they are working on constructing a battery monitor for Field Day. It was announced that at the April meeting, Rob VE7CZV and Garvin VA7YEE will be giving a talk on "Getting the Most from VHF/UHF".

Visitor Howard Robinson VE5GSN, who arrived after the meeting started, was welcomed.

Committee Reports

Financial

Treasurer Scott VE7HA announced that the chequing and savings accounts are in good shape. Sleeve badges are still available for \$4 each or \$10 for 3.

Foxhunt

Anton VE7SSD announced details of the Foxhunt planned for Saturday May 23rd at Crescent Park, stating that this has been an annual event for SARC since 2004. Anton is being assisted by Al Peterson VA7ALZ. Both beginner and advanced foxhunters will be accommodated by the program and all information is available on a notice attached to these minutes. Only 2m foxes (no 80m) will be used. The organizers are looking for assistance in setting up the foxes and helping with the BBQ.

Communicator

A report was not available due to the absence of John VE7TI. Thanks were expressed by John VA7XB to those who

contributed items for last month's edition, and an on-going request was made for input regarding the April issue.

Website

Howard VA7HTZ was not available for a report.

Net

Rob VE7CZV reported that there are no issues but he is always looking for additional net control operators. Elizabeth VA7ELA emphasized that net control is not difficult to do and encouraged others to take a turn.

Repeater

George VE7QH reported that the repeater was functioning well and that whatever problem prevented IRLP and Echolink from working last week appears to be resolved, with the most likely cause malfunctioning of the server. An interference issue was reported to George for the previous day (March 10th) but none of the members present were able to provide additional information.

Satellite Group

John VA7XB stated that the group has had 2 meetings, the members are very enthusiastic and making good progress towards having a fully-functioning satellite station ready for Field Day. Thanks were expressed to Deme VE7CRT for his tutorial on the use of SatPC32 satellite tracking software. The proposed 3rd meeting scheduled for March 29th will have to be deferred because of a conflict with contest activity.

CW Group

Garvin VA7YEE was not available to give a report.

Contest Group

Brett VE7GM stated that March is a very busy month for contests, with something scheduled for every weekend, including:

- March 14-15 Radio Society of Great Britain BERU CW Contest
- March 20-22 BARTG HF RTTY Contest
- March 27-29 CQ Worldwide WPX Contest, SSB

Brett noted that contests start to thin out in April and May, so aspiring FD operators should not fail to take advantage of those scheduled as FD is only 15 weeks away.

Field Day

Stan VA7NF briefly highlighted the plans for Field Day, which will have 3 primary objectives:

1. Competitive HF operation
2. Good public exposure
3. Year-end social

The Grandview site is proposed for use again this year. QRP (i.e. power 5 watts) operation is being considered as a detailed analysis done by Jim VE7FO shows some significant scoring advantages. In addition, ways in which the 5w power may present public relations benefits are being considered. Meals will likely be done in BYO fashion with a stove, BBQ and cooler provided for use of participants to cook their own meals. Al VA7ALZ is planning another foxhunt for the youth activity. Other suggestions were made to complement the “social” activities including those to engage other family

members. A Morse code scavenger hunt (as SEPAR has done) was suggested. Stan proposed that the public be encouraged to stop by with the offer of free coffee (and donuts?).

New Business

There being no new business the group broke for a coffee break and returned for the featured presentation.

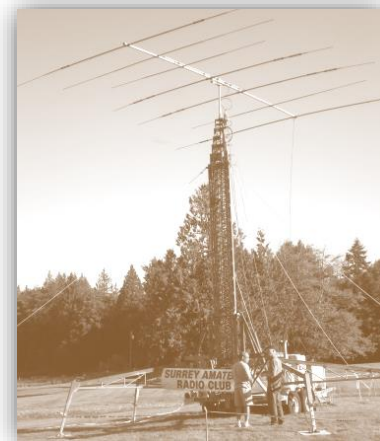
Presentation

After being introduced, Steve Wright VE7CT gave a talk on his recent DXpedition to Amsterdam Island (in the southern Indian Ocean near where the missing jetliner went down), illustrated by some excellent photography and commentary on the various operators and their unique skills, detailed preparations for the trip, the characteristics of the island including wildlife, vegetation and volcanic origins, the residents and their general involvement with the project, and the equipment and antennas used. Steve finished with a summary of the contact statistics and noted the overwhelming success of the expedition. Steve was thanked by VP Brett VE7GM and presented with a bottle of wine as thanks for his excellent presentation.

After the “members’ donation incentive” draw was won by Sheldon VA7XNL, the meeting was adjourned at approximately 2100 hr.

Minutes prepared from notes by

~ Rob VE7CZV



The **SARC Communicator** is published monthly except July and August for members of the Surrey Amateur Radio Club.

To subscribe, unsubscribe or change your address for e-mail delivery of this newsletter, notify SARCcommunicator@outlook.com

Non-members living in the Greater Vancouver area may receive one trial issue.

Beyond our membership area, annual Communicator subscriptions are available for a \$5 donation towards our Field Day fund.

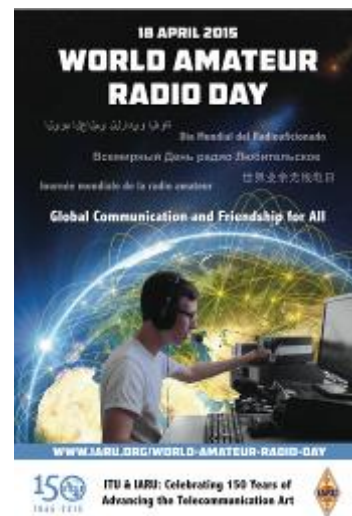
SARC maintains a website at www.ve7sar.net that includes club history, meetings, news, photos and other information.

On The Cover...

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It was on that day in 1925 that the International Amateur Radio Union was formed in Paris.

Amateur Radio experimenters were the first to discover that the short wave spectrum — far from being a wasteland — could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

In commemoration of the event, you are urged to ‘Get On The Air’ at least once during the day. The story is on page 4.



April 2015



World Amateur Radio Day

The International Amateur Radio Union

“Since 1925, the International Amateur Radio Union (IARU) has been the watchdog and spokesman for the world Amateur Radio community.”

[Learn More](#)

The IARU

Created in Paris, France, the International has been the watchdog and spokesman for the world Amateur Radio community since 1925. The IARU Constitution, last amended in 1989, organizes the Union into three Regional Organizations that correspond to the three radio regions of the International Telecommunication Union (ITU). The IARU Constitution also provides for an IARU Member Society to serve as the Union's International Secretariat.

The International Amateur Radio Union (IARU) is an organization consisting of over 160 national amateur radio societies around the world. The International Secretariat for the IARU from time to time receives inquiries from individual amateurs as to how they may join IARU. There are no individual members of the IARU. The best way to support the IARU is to maintain membership in one or more of the national amateur radio societies.

The IARU is governed by the IARU Administrative Council (AC). The AC consists of the IARU President, Vice-President, Secretary and two representatives from each of the three IARU regional organizations. IARU Region 1 is Europe, Africa and the Middle East and parts of Asia. IARU Region 2 is North, South and Central America. IARU Region 3 is most of Asia and the Pacific. The AC determines the policy for the IARU. All of the members of the IARU AC are volunteers as are the officers and directors of the IARU regional organizations.

The International Telecommunication Union (ITU) is the United Nations agency that deals with information and communication technologies. Included within the scope of the ITU work are communication services such as the amateur radio and the amateur-satellite services. The Radiocommunication Sector of the ITU (ITU-R) manages the international radio-frequency spectrum and satellite orbit resources. One of the primary activities of the IARU is to work within the ITU structure to preserve and maintain the spectrum allocated to the amateur radio and amateur-satellite services and to promote the usefulness and value of amateur radio. IARU attends all ITU-R meetings that may have any impact on amateur radio. In addition to being a sector member of ITU-R, the IARU also is a sector member of the Development Sector of ITU, or ITU-D. Emergency communications, disaster planning and response are topics discussed in ITU-D and IARU participates in those discussions. The nine individuals who are members of the IARU AC cannot attend all of the numerous ITU meetings that are important to amateur radio. There are quite a number of qualified individuals, termed Expert Consultants and Technical Representatives, who volunteer their time and effort in attending meetings and participate in working groups or study groups on behalf of the IARU.

The IARU Monitoring System consists of a number of amateur radio operators around the world who monitor the

amateur radio spectrum for intruders or non-amateur radio stations transmitting on the amateur radio frequencies. If an intruder is discovered then steps are taken to bring the intruder to the attention of the telecommunication authority where the intruder resides to have the signal removed from amateur radio bands.

The IARU Beacon Project maintains a series of radio beacons in various parts of the world so that amateur operators can determine propagation patterns and participate in propagation studies.

The IARU sponsors the yearly IARU HF World Championship contest. IARU member-societies and IARU volunteers are encouraged to join the contest to promote awareness of the IARU.

The Worked All Continents award is the oldest operating award in amateur radio. The basic award is earned by confirming contacts with the six continental areas of the world (contacts with Antarctica count for the nearest continent with a permanent population). Applications generally are submitted to an amateur's own national IARU member-society.

World Amateur Radio Day

Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It commemorates the day in 1925 that the International Amateur Radio Union was formed in Paris. IARU member-societies are encouraged to take advantage of this special day to promote amateur radio in their country. The IARU from time to time also becomes involved in other special projects related to amateur radio.

In addition, the three regional IARU organizations sponsor their own activities such as Amateur Radio Direction Finding (ARDF) championships.

Amateur Radio experimenters were the first to discover that the short wave spectrum — far from being a wasteland —

could support worldwide propagation. In the rush to use these shorter wavelengths, Amateur Radio was “in grave danger of being pushed aside,” the IARU’s history has noted. Amateur Radio pioneers met in Paris in 1925 and created the IARU to support Amateur Radio worldwide.

Just two years later, at the International Radiotelegraph Conference, Amateur Radio gained the allocations still recognized today — 160, 80, 40, 20, and 10 meters. Since its founding, the IARU has worked tirelessly to defend and expand the frequency allocations for Amateur Radio. Thanks to the support of enlightened administrations in every part of the globe, radio amateurs are now able to experiment and communicate in frequency bands strategically located throughout the radio spectrum. From the 25 countries that formed the IARU in 1925, the IARU has grown to include 160 member-societies in three regions. IARU Region 1 includes Europe, Africa, the Middle East, and Northern Asia. Region 2 covers the Americas, and Region 3 is comprised of Australia, New Zealand, the Pacific island nations, and most of Asia. The International Telecommunication Union (ITU) has recognized the IARU as representing the interests of Amateur Radio.

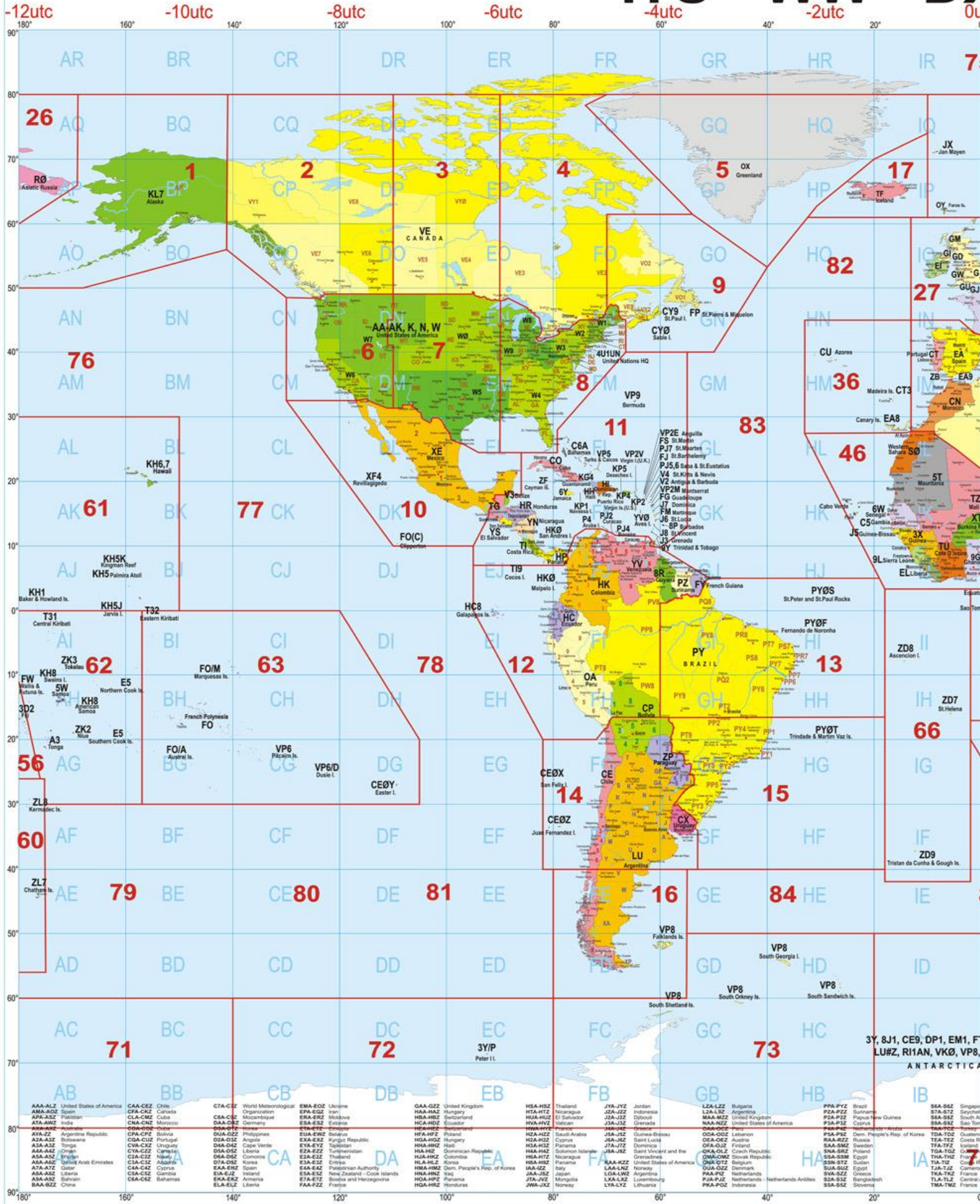
Today, Amateur Radio is more popular than ever, with over 3,000,000 licensed operators!

World Amateur Radio Day is the day when IARU Member-Societies can show our capabilities to the public and enjoy global friendship with other Amateurs worldwide.

You can promote your WARD activity on social media by using the hash tag #WARD2015 on Twitter and Facebook. IARU will list all WARD activities on this page. April 18 is the day for all of Amateur Radio to celebrate and tell the world about the science we can help teach, the community service we can provide and the fun we have.

“Every April 18, radio amateurs worldwide take to the airwaves in celebration of World Amateur Radio Day. It commemorates the day in 1925 that the International Amateur Radio Union was formed in Paris.”

ITU - WW - DX



April 2015



The Contest Contender—I

Brett Garrett VE7GM

Contest Calendar for April 2015

April brings only one “hosted” contest, the Florida QSO Party on the weekend of 25-26 April. This is one of the major QSO parties of the contest season.

QSO parties are generally more relaxed than the major ARRL and CQ international contests, so they are good opportunities for experienced contesters to try a new mode (SSB and CW are popular modes for QSO parties; RTTY and PSK31 are less common). For new contesters, the QSO parties offer a more relaxed introduction to the basics of contesting. Often the ops will take the time to help you through the exchange, and even exchange basic cordialities such as local weather reports.

Common to QSO parties is that the “host” region (in this case Florida) attempts to activate a full suite of political subdivisions (mainly counties in the US), so for people who are

trying to work a particular county in the “host” state for a United States of America Counties (USA-CA) award (google “[CQ USA-CA award](#)” to learn more), this is about the best opportunity you’re going to find. Even if you are trying to log your first contact from the state, or fill out your contacts by band or mode, the QSO parties are super opportunities.

One of the special features of the Florida QSO party is that it has active “rovers”, driving from county to county to activate counties which wouldn’t otherwise get on the air. Following these rovers (working them once in each county for extra points) is, I’ve been told, a special contest challenge that’s not to be missed.

Details about the Florida QSO party (“QP”) can be found here: <http://www.floridاقsoparty.org/>. This site gives suggested frequencies, the detailed rules (with exchange, entry categories, operating times, power limits, modes, the required exchange, detailed information on how to submit your log, available awards, etc.) and a full list of counties and their abbreviations.

The host station (either John VA7XB’s or Jim VE7FO’s, and sometimes both) are both well-equipped for the long haul to Florida, so unless propagation falls through the floor a good time is pretty well assured for both SSB and CW ops.

Host stations are open for both novice and experienced members of the contest group. If mentoring is desired, we can arrange that. If members just want to be able to enjoy the use of a really good station, then that’s ok also.

For rookie contesters who have only had their licence a short time the ARRL Rookie Roundup may be of

interest. The SSB edition will be held on Sunday April 19.

Here is the ARRL definition of ‘rookie’:

‘In the Rookie Roundup, a Rookie is defined as having been first licensed in the current calendar year or the previous two calendar years, regardless of license class.’

More information, including the rules, can be found here: <http://www.arrl.org/rookie-roundup>.

Jim VE7FO may be opening his station (subject to last minute availability issues) for the Rookie Roundup. Only two slots are available at most, and one is tentatively reserved already. Members who qualify as ‘rookies’, and who would like to get some dedicated mentoring from Jim in a low-key contest, should contact Brett VE7GM ASAP.

And for our non-rookies, please consider getting on the air for at least a little while on April 19 to work some of the rookies, and welcome them to the world of HF contesting.

There are two other contests of interest—neither hosted—in April.

The first is the CW edition of the Japan International DX Contest on the weekend of April 11-12. Details can be found here: <http://www.jidx.org/jidxrule-e.html>.

The second is the CQ Manchester Mineira DX contest on the weekend of April 18-19. Details can be found here: <http://www.cqmmdx.com/>.

SARC members who are seriously interested in contesting are welcome to join the group at any time. An introduction to contesting will be arranged for them if desired. Contact Brett VE7GM or any member of the SARC executive for information on joining the group.

“QSO parties are generally more relaxed than the major ARRL and CQ international contests, so they are good opportunities for experienced contesters to try a new mode...”

A Six Metre Project, Was It Legal?

George Merchant VE7QH

Propagation was never again like it was in the early sixties. I was amazed and impressed by the DX contacts that were possible then. VHF started to be of interest to me as 6-metre DX was particularly good in late spring. So good, in fact, that it encouraged us to be particularly innovative.

I was working as the chief engineer at a Prairie TV station. An engineer at "the other" station was a friend. Although the stations were competitors, the engineers not only got along, but even helped each other when needed. One evening, the engineer from the other station called and asked if I wanted to join him doing some mobile DX on 6 metres. I agreed.

We decided to drive to his transmitter site late that evening. The site was on a high hill (that's the best you can do for height on the Prairies). TV stations signed off after the late news in those days, so that, even before midnight, the noise level near a high-power TV station is minimal. The 6-metre rig was in the car as we parked by the transmitter building.

Then a thought struck us: How about using an "external antenna"? We entered the transmitter building - this was all legal so far, as the fellow worked there normally - and we evaluated the work to be done. The TV station transmitted on channel 2, and that's as close as you can get to 6 metres.

They used a 50 KW transmitter, feeding a 6 db gain antenna 400 feet up the tower through a 3 1/8 inch copper transmission line. The first challenge, as we saw it, was how to connect our run of RG8/U to the 3 1/8 inch copper pipe. The solution was simple: we used a test jig that had been made up to test the antenna and connect to test equipment - an adapter that went from an N connector to the copper transmission line. By the way, the transmission line was solid copper pipe with a centre conductor that looked like half inch copper water pipe. In the length that went up the tower, the space between the outside conductor and the centre was filled with nitrogen under pressure.

We disconnected a ninety degree piece in the line which gave us the opportunity to connect our "adapter", then connected our RG8/U cable to it. We ran the cable out the building door and into the car, connected it to the 6 metre rig. Bingo! We had our rig connected to an "external" antenna that was 400 feet above our car and had a 6db gain to boot. DX was fantastic that night. People all over the U.S. were amazed at our signal. We didn't "tell". And everything was re-connected well before the TV station went on air the next morning.

~ George VE7QH

Then a thought struck us: How about using an "external antenna"?

Repeater Day—April 11th

Over the last decade a lot of local repeaters are becoming more and more silent as the days tick by. Coastal Ham Radio, an online club started in the fall of 2014 is proposing April 11 as repeater day. We are promoting that on April 11 between 11:00-15:00 we encourage all amateurs to make a contact or two on a repeater of their choosing. Please spread the word and get involved.

April 2015



The Contest Contender—II

Fred Orsetti VE7IO



CANADA DAY CONTEST 2014 RUNNING VE7RAC



John VE7TI

The Canada Day contest is one of the most fun events of the year and using VE7RAC certainly adds icing on the cake. It has both CW and SSB modes available to the CW and SSB ops with plenty of activity. Working Canadian stations on our National Birthday somehow seems like a very patriotic activity. In the Canada Day contest there are many Atlantic Canada Stations are on the air, something we do not see during other worldwide contest, plus they are pointing their beams in our direction.

This year we had great ops to help us in achieving first place in Canada, something that has eluded us in the past. Fortunately, the big gun station of VE6JY in AB did not run VE6RAC and this put us in a position to win. Don, VE6JY, has a marvelous station in AB, you can go to QRZ.com and have a look at his station layout. Anyway, we had an opening and using VE7RAC we managed a top Canadian score.

We ran two stations at VE7IO using two amplifiers at close to legal limit. Generally, we tried to keep one station on SSB and one on CW. Using VE7RAC we

tried to keep the station on the air for the full 24 hours but missed about 4 hours during the night.

Canada Day, July 1st is a busy day with SEPAR participating in the Canada Day celebrations in Cloverdale, BC and having one of our operators, John VE7TI, managing the SEPAR display. The SEPAR trailer was hemmed in at the event, however, when a contester is determined to make his shift he does what needs to be done to make it happen. To get the trailer out of the park John had to

Band	Mode	QSOs	Pts	Sec
3.5	CW	19	112	3
3.5	LSB	16	160	5
7	CW	46	220	6
7	LSB	199	1132	8
14	CW	421	1986	12
14	USB	367	2162	11
21	CW	178	806	9
21	USB	249	1544	11
28	CW	1	10	1

Total Both 1496 8132 66
Score : 536,712

do some persuading of other booth operators to allow the trailer to be moved out, and he made his shift.

July 1st can be a hot day, and it was, we had 3 fans running, all the window and the door open to try to keep the shack cool, we only managed to get the temperature down to 32C, it was warm. Despite the hot operating environment we managed to keep both radios on the air until the very end.



Stan VA7NF

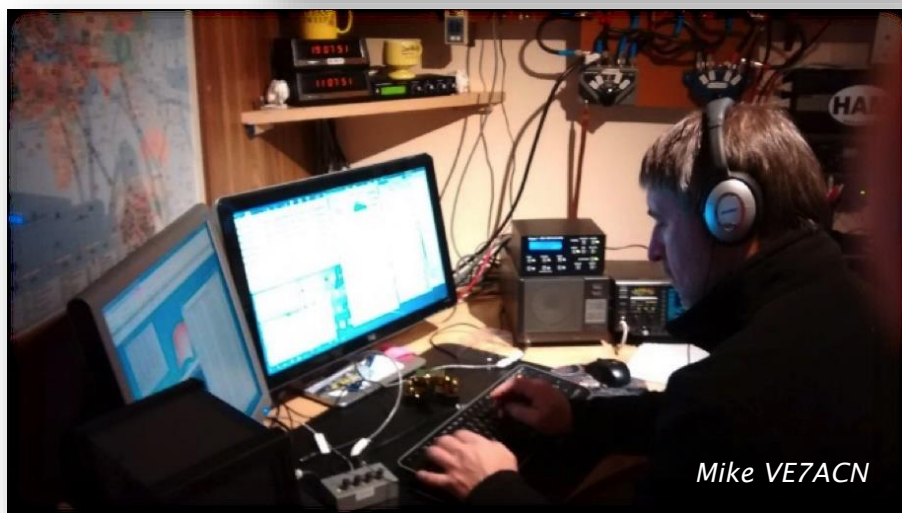


Ken VE7BC

Thanks and congratulations to all the operators who placed us on top in Canada. A very well-known DXer, Marti Lane, OH2BX, says, after a successful DXpedition, where to next? Well after the fun time we had here at VE7IO in 2014, I will make plans to operate VE7RAC here in 2015!



Christine VA7NLF



Mike VE7ACN

The next contest opportunities are:

April 2015

- Florida QSO Party - Apr. 25 from 09:00 PDT to 18:59 PDT (10 hours 1600-0159 UTC) and Apr. 26 from 05:00 PDT to 14:59 PDT (1200-2159 UTC)

May 2015

- CQ-M International DX Contest - May 9 at 05:00 PDT to May 10 at 04:59 PDT (24 hours 1200-1159 UTC)
- CQ WW WPX Contest, CW - May 29 at 17:00 PDT to May 31 at 16:59 PDT (48 hours 0000-2359 UTC)

On behalf of the successful operators 'd like to thank Fred VE7IO for his hospitality, opening his shack for the contest. Fred has an excellent station and you know you are going to get some QSOs if they are out there.

~ John VE7TI

The Scoreboard

MULTI OPERATOR MULTIPLE TRANSMITTER (MOMT)

Call	Score	CDN	RAC	DX	QSOs	Mult
VE7RAC	537,240	576	30	890	1496	66
VA2RAC	406,200	497	24	660	1181	60
VE3DC	337,008	443	22	869	1334	51
VE5RI	306,346	427	25	874	1326	47
VE6RAC	298,400	592	16	610	1218	40
VE6AO	83,448	154	14	249	417	36
VE5RAC	81,780	182	15	303	500	30
VE3RCMP	37,140	85	10	94	189	30
VA3SK	24,096	71	9	57	137	24



Fred VE7IO

April 2015



QRM

...from the Editor's shack

*Do you have a photo or bit of club news to share?
An Interesting link?*

*Something to sell or something you are looking for?
eMail it to SARCcommunicator@outlook.com for inclusion in this column.*

Palm Springs, CA HamFest

One of the largest Amateur Radio Clubs in the desert area is the Desert RATS (Radio-Amateur Transmitting Society) group. The D-RATS Club is very similar to our own SARC group in the content of their meetings and activities. What particularly impresses me is the number of ladies, both young and older, active in the club.

For the past several years, D-RATS has organized a HamFest. This started out in the barn of one of their members and has grown to include a number of major vendors and the attendance of well-known names in our hobby. There are the usual table sales of old and newer equipment, parts and accessories, several vendors with clothing items and custom embroidery, and dealers specializing in just about every imaginable type of connector and adapter.

If you find yourself in Southern California in March, check it out. If not, you can check out the Desert RATS website at URL:

DesertRats.am

~John VE7TI



Left: Lots of connectors and adapters.

Top Right: Gordon West WB6NOA, co-host of the weekly podcast HamNation, delivers an entertaining keynote session.

Below Right: Satellite guru Clint Bradford K6LCS, attempted several contacts including the ISS.



Heinz VA7AQ on the Sick List

As of Friday, March 27, I am pleased to report that Heinz VA7AQ is recuperating satisfactorily after his big surgery. I believe he is now going into week 3 at Surrey Memorial Hospital, but they will be keeping him under observation for several more days before discharging him.

Heinz told me his biggest annoyance is missing the CQ WW WPX contest on this weekend. He is in good spirits and looking forward to getting back home and enjoying the benefits of better health, which he has not had for many years.

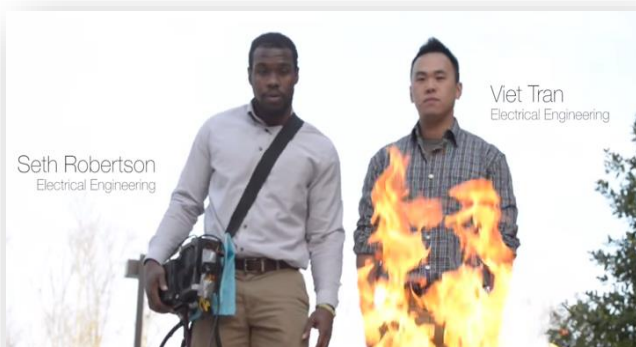
We all wish Heinz a continued recovery and look forward to his renewed involvement in club activities, especially contesting.



Page 13—News You Can Lose

The Lighter Side of Amateur Radio

One Way To Put Out A Fire



These George Mason University engineering students rigged up a sonic fire extinguisher that produces sound waves at frequencies between 30 and 60 hz. At that rate, the waves move the air around them in such a way that they disrupt the rapid oxidation at the core of a fire. The process essentially separates the oxygen from the fuel source and quickly extinguishes the fire. Brilliant!

<http://www.youtube.com/watch?v=uPVQMZ4ikvM>

<http://www.popularmechanics.com/technology/gadgets/a14766/these-guys-put-out-fire-with-sound-waves/>

Thanks to Susan Eshelman for the tip.

DXpedition to Northern Korea

By WBØRUR, on the scene

MOUNTAIN VIEW, KANSAS - In what's being called a tremendous yet terribly confusing opportunity for amateur radio, a Kansas ham radio club is moving forward with plans for an April DXpedition to northern Korea.

Members of the Great Windy Plains Radio Club are in the final preparation stage for their trip to northern Korea - a small town located in [Culpeper County, Virginia](#). The trip is expected to take the 12-person group approximately 15 hours via a caravan of older pickups and recreational vehicles.

"Our travel time is limited by Jimmy's 1984 Holiday Rambler," says club president Ralph Watson. "Ever since that head gasket blew during Field Day '08, his RV won't go faster than 42 mph. It'll cut into our operating time, but it's a small price to pay for his kitchenette and fresh water tank."

Northern Korean leaders were agreeable to the club's operating conditions adds Watson. "In fact, the Chamber of Commerce has agreed to supply us with coffee and soft drinks during our stay."

The GWPRC will set up operations in the lobby of the Holiday Inn Express, located on the northern side of Korea near the Culpeper and Rappahannock county line (on Eggbornsville Road).

"They've got a free continental breakfast, too," adds Watson. "It's really a win-win for everyone."

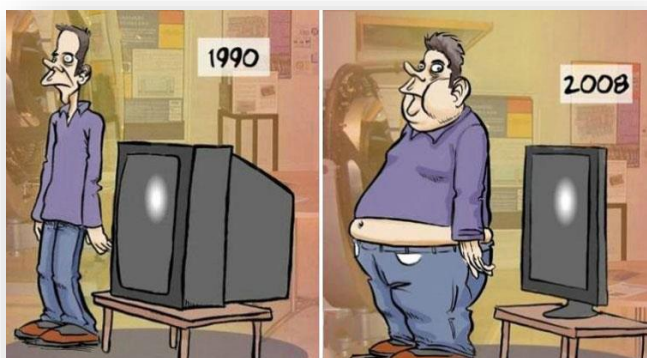
"The club has wanted to stage a DXpedition for a long time," says 'Junior' Hardy, a club member. He is also volunteering the use of his Swan 350 transceiver for the 20 meter SSB operation.

"But we don't hear as well as we used to, so working pileups is out of the question. And most of us have prostate issues, so traveling long distances on a boat isn't a possibility.

"We're excited about activating northern Korea," says Hardy. "We'll QSL as soon as possible, too!"

The club will use call sign "KP5A" while operating from northern Korea. They will be active daily except during lunch when the group can be found at the Golden Corral in nearby Shenandoah.

hamhijinks.com



April 2015



History of SEPAR

Fred Orsetti VE7IO



"Our emergency communications kits were now becoming known in the amateur radio world and we started to receive requests for design and construction information..."

Part 4

Boxes to functioning portable communications kits; this was no small project and involved many hours of design, assembly and testing. As mentioned in article 3, many hours went into a design that would meet the needs of the city of Surrey (CoS) and now we needed a mock-up, then a proto-type and finally the finished product. Plans were to use a team approach to work our way through these steps. But in the end the construction of the kits was taken on by John Brodie, VA7XB using his own newly constructed workshop.¹ We carried on with the Sunday morning meetings at John's shop each week, where we discussed the construction as it progressed. Needless to say there were many details to work out and many hours went into the first kit. Construction of kits two and three went more quickly as the first kit had been completely debugged before starting the others. John's experience and training proved to be invaluable when problems arose, and as result, we have one of the best emergency communications kits around.

Once the kits were completed and tested we received many positive comments from both the City and other amateur radio groups, which prompted us to consider articles for RAC and ARRL. The construction, testing and commissioning were fresh in our minds and John, VA7XB, offered to act as scribe and produce articles for RAC and ARRL. With input from the SEPAR team John produced an outstanding article for RAC which was then picked up by ARRL. ARRL even paid us a fee for the use of our article, great stuff.

Our emergency communications kits were now becoming known in the amateur radio world and we started to receive requests for design and construction information, and we were anxious to make this information available. After some discussion it was decided to produce a CD

with full construction details including high resolution images and schematics, this would be a professional product so let's ask a nominal \$20.00 for the CD, and it went over big. We still have this information available if anyone is interested.

We continued to grow in terms of recognition and ARRL published our kits in the ARRL Handbook

An excellent video was produced showing the contents and assembly of the grab and go kits, you can view this at <https://www.youtube.com/watch?v=E-a0yC--k6Q> It has over 10,000 views!

The SEPAR kits have had their use, some photos of our community events are shown.

SEPAR Obtains Society Status On July 3rd 2009

Without a doubt the reason for SEPAR to become a society was provide an opportunity to obtain funding in order to continue to expand and improve our ability to provide emergency communications for the City of Surrey. The grab and go kits were the center piece of SEPAR's emergency communications strength but we needed to update the radio room at the EOC, amongst other things. The plan for the radio room was to duplicate the equipment in the grab and go kits and provide a fixed amateur radio emergency communications station that could serve the needs of the Emergency Operations Center (EOC), for the City of Surrey.

In order to equip the radio room we needed new radios, antennas, computers and Terminal Network Controllers and new workstations. The City agreed to provide the workstations and cabinets and SEPAR undertook the responsibility of providing the equipment. Our plan was to develop a



budget and apply to BC Lotteries for funding for the new equipment. And, while we were at it we wanted new emergency communications vests so that our members would be easily identified at exercises and community events. Since becoming a registered society SEPAR now had an executive team that, due to a wealth of experience, put together an application for funding to BC Lotteries. We were successful and now we could purchase the needed equipment and move forward with upgrading the radio room at the EOC and purchase high quality vests for our members.

The City very quickly had the cabinets made and installed and with the help of Bill Slaughter at Burnaby Radio and Icom Canada the equipment was purchased. Installing the radios was time consuming, but with dedicated volunteers the installation went well. However, there was a major problem with the antenna installations. The existing, not functioning, antennas were mounted on tripods sitting on the roof of Fire Hall number one, and we could not make use of any of them. Dan Barnscher, the Emergency Planner, wanted the antennas to be neatly and permanently installed and they had to be clear of the roof surface as the firemen use the roof for training purposes.

After investigating possible locations for two dual band, two tri-band and one HF antenna a location on the west wall of the building was approved. We now needed mounting hardware that we could attach to the vertical wall, we needed mounts and masts. After some checking with local tower company's we were able to acquire, free of charge, the large brackets needed for mounting the antenna masts. We purchased, at a discounted price, the schedule 40 and 80 aluminum mast material from a company in Langley. We had the material now how to get it attached to the building. Surrey Fire gave us the green light to do the work on the building ourselves and our volunteers quickly rose to the challenge. In particular Kjeld, VE7GP, who had been in the construction business before retiring, offered to oversee the installation of the antenna mounting hardware. We had several volunteers to drill holes, hold pipes, tighten bolts, and the job was completed in 3 days.

~Fred VE7IO

SEPAR Coordinator
ve7io@separs.net

Note: ¹The credit for the concept, selection of gear and proper functioning of the grab & go kits rightly goes to other members of the team, who supplied the brain-power: Bill VE7XS, Fred VE7IO and Drew VA7DRW. Though I did the actual physical construction, this was very much a team effort and it would be a discredit to the others if I did not say so. ~ John VA7XB



The IARU Emergency Telecommunications Guide is available online for free!

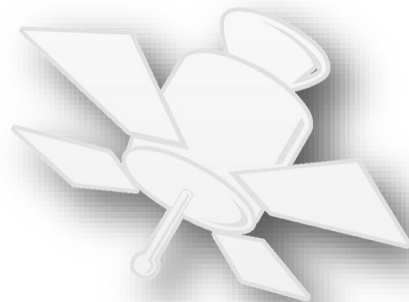
At the 2014 IARU Administrative Council meeting, the Council approved the IARU Emergency Telecommunications Guide and the Guide is now available on the IARU web site. This emergency telecommunications guide was developed to provide the IARU member-societies with materials suitable for training their members to participate in emergency events.

April 2015



Satellite Specialty Group

John Brodie VA7XB



*The next meeting is
scheduled for
Sunday, April 12th*

The second meeting of the Satellite Group was held on March 1st with the entire group present to hear Deme VE7CRT's tutorial on the use of SatPC32 satellite tracking software. Deme walked through all the menu items and spent some time on the auxiliary files (accessible via the Help menu) such as Doppler SQF and Subtone SQF. Useful programs available from SatPC32 are Win Listen and Win AOS which lists all satellites available and when to expect them. The status of various satellites was discussed including: SO-50 and AO-51 - the only operating FM satellites, both of which require a sub-audible tone to activate

AO-7 - batteries are dead, so satellite must be in the sun to work

AO-73 - transponder is switched on and off. When in sun, beacon only. When in eclipse transponder is on and we can make Qs

FO-29 - only USB/LSB works

It was noted that there will be more success in making North American contacts if the satellite is moving from E to W. Also, the higher the satellite is the bigger will be the footprint (ISS is low). A good website is at URL:

<http://aar29.free.fr/sat/indexlogin.html>

which shows status of satellites.

Deme showed photos of his station and antenna setup (home brew quads which do not use circular polarization). The group then watched the You-Tube video "Ham Radio AO-51 Satellite Again" contact between K7AGE and VE7CRT demonstrating how simple the equipment can be for making satellite contacts.

Sheldon displayed his "SatCat" PCB for use with FT-817, an interface project that allows contacts via the analog birds with a single non full duplex, all-mode VHF/ UHF transceiver. A description can be found at URL:

<http://www.arrl.org/shop/files/pdfs/Satellite%20Kit.pdf>.

The group inspected equipment proposed for use at Field Day: the tower, 2 m cross yagi and 440 m cross yagi. Next meeting is scheduled for Sunday April 12th at which time the group will examine Ralph and Nell's tracking setup, then will test the FD antennas and possibly use them for some live tracking.

~ John VA7XB

*Below, left to right:
Nel, Ralph, Deme, John,
Jay, Hiu and Sheldon*



Wanted

The recently-created SARC Satellite Group is looking for a 2m circular-polarization cross yagi antenna. Do you have one to sell or donate or know someone who does?

If so, please contact John VA7XB at va7xb@rac.ca

Grounding Q&A

Roy Lewallen, W7EL, ARRL Technical Adviser replies to some questions posted on a newsgroup.

Q1. How important is a ground? Most people say that grounding is all-important, but I have had a few people tell me that grounds aren't necessary.

A1. Grounds fulfill three distinct functions. The best ground for one function isn't necessarily the best for another. The three are:

a. **Electrical Safety ground.** This protects you from a shock hazard if one of the mains or high voltage power supply wires contacts the chassis due to some kind of fault. The requirements for this ground are spelled out in your state's electrical code. I believe that most states adopt the National Electrical Code (NEC). The safety ground conductor in your wall sockets should be connected to ground according to this code, and your rig's chassis should be connected to the safety ground.

b. **Lightning ground.** The requirements for a ground for lightning protection are much more stringent than for a electrical safety ground. The topic has been discussed in this group many times, and there are numerous resources available for learning how to make a ground system for lightning protection.

c. **RF ground.** This is required only for certain types of antennas, which are those that require current flow to ground to complete the antenna circuit. An example is a quarter-wave vertical. One wire of the feedline connects to the base of the antenna, and the other connects to ground. The connection to ground has to have a low RF resistance, or you'll expend too much of your power heating the ground. A few radial wires will provide a moderately low loss connection. A ground rod will help a little, but the RF resistance will be high, resulting

in quite a bit of loss. Chapter 8 of the ARRL Antenna Book shows the approximate trade between resistance and number of radials. If your antenna is much shorter than $1/4$ wavelength, you'll need many, many radials to get reasonable efficiency. If it's longer, you can get by with fewer. A $1/2$ wavelength base-fed vertical needs only a very modest ground, and a ground rod is adequate. The requirements for various other end-fed antennas depend on their length. If you use a "complete" antenna like a Basic Hertz (dipole) or a ground plane Marconi (that is, one that doesn't require your feedline to connect to ground), you don't need a RF ground, as long as you keep common-mode currents off your feedline. A "current" or "choke" balun is most commonly used for this.

Q2. What are the ground / counterpoise alternatives to driving an 8-foot metal pole into the ground? I live in an apartment, and I highly doubt I can do this.

A2. Shallow-buried radial wires are the best. Connection to other conductors just under the surface, like a metal water pipe, is next. These are for the RF ground described above.

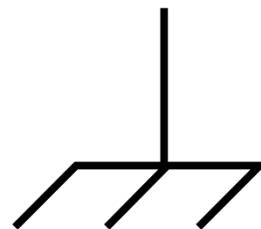
Q3. I have heard that balanced antennas don't require grounds. How do I get a balanced antenna?

A3. See RF ground, above.

Q4. How do mobile HF operators get RF grounds? For obvious reasons, the 8-foot buried pole won't work.

A4. In a typical HF setup, the car is capacitively coupled to the ground, so the antenna is something sort of like a cross between a lopsided vertical dipole (with the whip being one side and the car the other) and a vertical with elevated radial system.

RF ground... is required only for certain types of antennas, which are those that require current flow to ground to complete the antenna circuit.



April 2015



Radio-Active

Jinty Reid VA7JMR



Nicole Stopa
VE7PET

Nicole was born and raised in Burnaby and New Westminster but the family moved to North Delta in 1980. Although Nicole only has one brother, she belongs to a large extended family.

Nicole graduated in 1989 from the North Delta Senior Secondary School where she won an award for working with children in elementary school, teaching them to read and write. After graduating from High School, Nicole took a year off from schooling to volunteer at the Surrey Child Development Centre. She went on to attend Douglas College where she took a Personal Development course, graduating from this in 1990, which she states, broadened her perspective on life. After this Nicole attended a course on Children with Disabilities as well as one on electronics and graduated finally from college in 1999.

While at Douglas College she met and befriended Arthur Siemens. Arthur introduced Nicole to volunteering with the Salvation Army and she worked as a general volunteer with them in their Street Ministry with the homeless. She also volunteered in the Salvation Army Emergency Program and became a Team Captain.

In 2007 Nicole obtained her Basic Amateur Radio License and in 2011 joined SARC with Arthur. She stated that she felt she wanted to deepen her knowledge of ham radio so took the Basic License again and obtained honours.

Although Nicole has not yet ventured on the airwaves she enjoys learning others new call signs. She has a new radio, a Wouxun KG-UV8D, more commonly known as a 'Chinese Radio', so hopes this will motivate her to getting on the air.

She and Arthur have helped with the security and food at Field Days and the barbecue at Foxhunts. They are always willing to serve in whatever capacity they can.

Nicole likes to travel and goes with Arthur to the Osoyoos every year for a long weekend to a house by Lake Orville. Some day she would like to visit Australia.

Her hobbies are knitting, cycling and hiking. Nicole and Arthur are now engaged to be married but as yet no date has been set. Nicole is always smiling and willing to help others and has a caring nature and SARC thanks you for your willingness to serve.

- Jinty Reid VA7JMR



April Events

Sun	Mon	Tue	Wed	Thu	Fri	Sat
29	30	31	1	2	3	4
For details on all SARC events, go to ve7sar.net For details on all SEPARS events, go to separ.shutterfly.com/calendar					0800 Club Breakfast: Kalmar Family Restaurant, King George Blvd & 81 st Ave	
	6	7 1930 SEPAR Net 2000 SARC Net	8 SARC General Meeting	9	10 0800 Club Breakfast: Kalmar Family Restaurant, King George Blvd & 81 st Ave	11 Repeater Day Make a contact... see page 9 Seattle Comms Academy
12 Seattle Comms Academy	13	14 1930 SEPAR Net 2000 SARC Net	15 Port Metro Emergency Exercise Volunteers Needed	16	17 0800 Club Breakfast: Kalmar Family Restaurant, King George Blvd & 81 st Ave	18 World Amateur Radio Day!!! Get On The Air see page 4
19 SunRun Radio Volunteers Needed	20	21 1930 SEPAR Net 2000 SARC Net	22 SARC Exec Meeting	23	24 0800 Club Breakfast: Kalmar Family Restaurant, King George Blvd & 81 st Ave	25 Contest: Florida QSO Party
26 Contest: Florida QSO Party	27	28 1930 SEPAR Net 2000 SARC Net	29	30	1	2

April 2015

**QRT**

John Brodie VA7XB

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Stan Williams VA7NF

On the Web ve7sar.net

Between newsletters, watch your e-mail for announcements of events, monthly meetings and training opportunities. These announcements can also be found on our web page, or via:

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SARC Photos
Web Albums

or

tinyurl.com/SARCphoto

It was the Best of Times, it was the Worst of Times ...

With apologies to Charles Dickens, I will start by saying that the Radio Society of Great Britain's BERU (British Empire) CW contest represents one of the "best of times" in my opinion - strictly for British Commonwealth countries and a new experience for me. It's Thursday and I'm getting prepared for the BERU a couple days ahead of time, so the first order of business is to get the new and improved N1MM+ Logger loaded up and configured. I read the instructions carefully and all goes smoothly. This software has many new features but has a similar look and feel to the old one, so the transition is quite easy. Next thing is to bring up the BERU contest file and revise the macros so they fit for this contest. Done, now let's try it out. Here's where we get to the "worst of times" part.

Thursday evening and I see 7QAA (Malawi) on the cluster for 20m, so this is a good opportunity to give N1MM+ a pre-contest workout. His signal is strong and he's working split - let's see if I can bust the pileup. The amp is on and tuned so I point the beam to 46 deg and call him. I hit the F4 macro to send my callsign about 2 kHz up from his transmitting frequency.

All goes as planned the first few times then suddenly everything freezes up. Repeated pressing of the F4 key with the mouse has the same result - nothing is entered and nothing is sent. Cripes, I'm glad he didn't call me back for the exchange. A few more tries but success appears random. An hour or so of experimenting with various things makes no difference...there is a problem here and it's going to have to be resolved before I can make headway. After a while I give up trying to break the 7QAA pileup as nothing is going right for me, and call it a night. I wonder if the problem has something to do with the new N1MM+ installation, so will plan to use N1MM Classic in the contest until I can get this sorted out.

It is 8 am on Saturday and 20 m is starting to open to Europe. As I turn the computer on, it emits some audible groans and immediately crashes. On an attempted reboot, the PC automatically goes into "repair" mode and after 15 minutes grinding away, comes back to life, apparently OK after having completed a system restore in the process. Back to the contest. I'm on N1MM Classic now. Having succeeded in calling and being heard by a G3, I then hit F2 for the exchange. Dang, the computer freezes up again. So I try the mouse instead - same thing. Then I try the CW paddle to make the exchange manually but it doesn't respond either. What the heck is going on here? By this time the G3 Headquarters station (bonus points!) has given up on me and I'm getting perturbed. This fiasco continues spasmodically for some time until eventually I switch to 15 m. Now things seem OK again and I log some good Qs. And so it is with 10 m - no problems for the next couple of hours.

Later in the day, I'm back to 20m and the gremlin returns. So is the problem the hardware, the software, the computer or what? And why only on 20 m? I check the settings on the Microham and N1MM, cable connections, reboot etc and these things all seem normal. It eventually occurs to me that maybe this is an RFI issue, as I'm running 750 watts and have made some cabling changes in recent weeks. So I round up all the ferrite

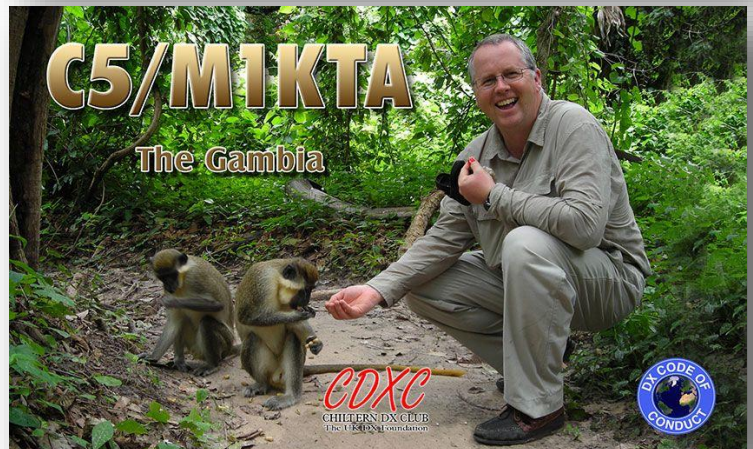


cores I can lay my hands on and lock them on the computer cables for another try. This time, things start to hum so it looks like this may be the solution.

Later in the day the high bands dry up and I decide to QRT for good, after 6 hours off and on. Despite the frustrations I did log a few satisfying Qs to reduce my torment: VU3KPL and VU2PTT (India), ZS1EL (South Africa), 9J2BO (Zambia), V5/G3TXF (Namibia-2 bands), C5/M1KTA (the Gambia). 93 Qs in all - nothing to boast about and it could have been a lot better without the RFI.

But, wait, it's not over yet. Now it's a week later and time for the BARTG RTTY contest. I turn on the system and quickly find the 20 m gremlin is still with me. So Sheldon and I stick to 15 m for the first day. Later I am thinking that maybe I have ground loops, as not all the critical gear is connected to a common ground. I fix that and change out my keyboard as an extra measure of precaution. A quick test shows that 20 m "seems" OK now, but the bands have dried up (a recent Coronal mass ejection) and there are no further contacts to be made. So further testing will have to await another opportunity. Hey, I just thought of something...the ground for my shack is about $\frac{1}{4}$ wavelength long at 20 m so would that be affecting the equipment? I'll have to experiment with that. Somehow I think the "worst of times" are not yet over.

- John VA7XB



SARC Participates in the ARRL DX SSB Contest

(or Limbering up the Lips in Practice for Field Day)

Jim VE7FO did this contest from his station while John VA7XB and Alex IZ7FMM showed the VE7SAR flag. Conditions were quite good with all bands open at various times. As usual other commitments got in the way of a serious effort but the ops did manage to squeeze a few hours in amongst other obligations.

The Middle East made a good showing and contacts were confirmed with Saudi Arabia, Bahrain, Qatar and Kuwait. Indonesia and Malaysia were conspicuously absent. FR5DX in Reunion Island near Mauritius was a notable contact for both VE7FO and VE7SAR. Although E30FB Eritrea was on the air and under heavy bombardment VE7SAR did not work them (VE7FO did however).

Photo shows IZ7FMM at the mic.



Here is how it went for VE7SAR:

Operator	7	14	21	28	Tot
IZ7FMM	0	0	69	57	126
VA7XB	4	151	24	27	206
Total	4	151	93	84	332

April 2015



SURREY AMATEUR RADIO CLUB

2015 RDF Foxhunt

**Saturday May 23, 2015 at
Crescent Park, South Surrey**

Pre-Hunt Coaching, Registration & Instructions 0900 - 1000

Foxhunt commences at 1000 with barbeque at 1200

To participate, you need a 2 m handheld radio. However, if you are a beginner, or don't have a radio, then come anyhow! You can be part of a more experienced team or we may have some spare equipment that you can use.

Talk-in 147.360+ (110.9 tone)

**FOXHUNT – NO CHARGE;
BARBEQUE \$10**

All are welcome, but we ask that you RSVP Anton James VE7SSD jamesadf@shaw.ca and indicate if you plan to attend the foxhunt or BBQ or both



*To get there, take
Crescent Rd. west
from King George
Blvd near Hwy 99,
& turn off at 129th
St. to parking &
assembly area*

The April Meeting

"Getting the Most out of VHF/UHF

The April 8th meeting will feature a presentation by Rob Gilchrist VE7CZV and Garvin Yee VA7YEE, both blind hams. Rob and Garvin will tell us about the ways they practice our hobby and will demonstrate modes like EchoLink and IRLP. Those who have never used these modes will learn how to set up their radio and computer, so they can communicate with stations around the world from the convenience of their laptop, tablet or hand-held phone.

We expect Rob and Garvin will discuss what they see as the emerging technologies of digital voice, including D-Star and competitive forms, and their opinions on what version will likely become dominant. For vision-impaired amateurs, operating a radio takes unusual talents and tools so we may receive insights as to how these challenges are overcome by those who are unable to see what is on the face of the radio or other devices. It promises to be an interesting session for both experienced and beginner hams alike."

~ Rob VE7CZV

SARC hosts an Amateur Radio net each Tuesday evening at 8 PM. Please tune in to the VE7RSC repeater at 147.360 MHz (+600 KHz) Tone=110.9, also accessible on IRLP node 1736 and Echolink node 496228. On UHF we operate a repeater on 443.775MHz (+5Mhz) Tone=110.9 and EchoLink Node 1736

	SEPARS Net	SARC Net
1 st Tuesday	Drew VA7DRW Jay VE7KC Stdbby	Drew VA7DRW Brett VE7GM Stdbby
2 nd Tuesday	Dixie VA7DIX Alan VA7BIT Stdbby	Jinty VA7JMR
3 rd Tuesday	Rob VE7CZV	Rob VE7CZV
4 th Tuesday	Peter VE7PGX Dixie VA7DIX Standby	John VA7XB
5 th Tuesday	Jinty VA7JMR	Elizabeth VE7ELA
Want a turn at Net Control? Contact the SARC Net Manager VE7CZV @ separs.net		

Down The Log...

SARC Monthly Meetings

2nd Wed. (Sept-Jun)
1900 hrs at the
Emergency Mgmt BC
PREOC,
14275 96th Avenue,
Surrey, BC

Weekly Club Breakfast

Friday at 0800 hrs
Kalmar Family
Restaurant at
King George & 81st
Surrey

SARC Net

Tuesday at 2000 hrs
local
on 147.360 MHz (+)
Tone=110.9

SEPARS Net

Tuesday at 19:30 hrs
local
on 147.360 MHz (+)
Tone=110.9

SEPARS Monthly Training

4th Tuesday of each
month, 1900-2100 hrs
14923—64th Ave, next
to Firehall #9, Surrey.



We Have A SARC Patch!

These are suitable for sewing on a jacket, cap or your jammies, so you can proudly display your support for the club.

The price is \$4 each or three for \$10 and they can be picked up at the meeting or a Friday

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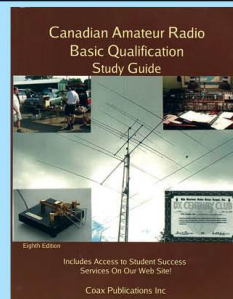
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2015 ARRL FIELD DAY

HAM RADIO